

Fluon[®] Filled PTFE Compounds Overview

FILLED PTFE COMPOUNDS

PTFE can be tailored to meet specific performance requirements by the addition of fillers including glass, carbon fiber, graphite and metal powders such as bronze and molybdenum disulfide. These fillers can improve properties such as wear resistance, creep resistance, thermal conductivity and electrical conductivity while preserving several properties unique to PTFE including a low coefficient of friction, excellent chemical resistance and outstanding thermal performance.

LOW-FLOW COMPOUNDS

Non-pelletized or “low-flow” compounds are manufactured in powder form and are used in applications that demand the highest mechanical strength. These applications include thick-walled billets. These billets are typically machined into parts used in the chemical process and petroleum industries as bearings, seals and gaskets.

FREE-FLOW COMPOUNDS

Pelletized or “free-flow” compounds have a higher bulk density and hence improved feed characteristics. This property allows pelletized compounds to be easily processed in automatic molding equipment.

STANDARD PRODUCTS

Product Description	Pelletized (Free-Flow)	Non-Pelletized (Low-Flow)
15% Glass Fiber	FC 403	FC 103
25% Glass Fiber	FC 405	FC 105
5% Glass Fiber / 5% Molybdenum Disulfide	FC 472	FC 172
15% Glass Fiber / 5% Molybdenum Disulfide	FC 474	FC 174
5% Molybdenum Disulfide	FC 411	FC 111
10% Graphite Powder	FR 22	FC 122
15% Graphite Powder	FC 423	FC 123
15% Carbon Powder	FC 433	FC 133
40% Bronze Powder	FC 444	FC 144
60% Bronze Powder	FC 446	FC 146
55% Bronze Powder / 5% Molybdenum Disulfide	FC 482	FC 182

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HANDLING PRECAUTIONS

Heating Fluon products in excess of 750 °F (399 °C) can produce toxic fumes. It is therefore necessary to provide local exhaust ventilation in areas where Fluon products are exposed to high temperatures. Avoid breathing fumes or contaminating smoking tobacco with fumes, powder or dust.

Thermal decomposition of this product will generate hydrogen fluoride, which is corrosive. Corrosion-resistant materials are required for prolonged contact with molten resin.

SAFE HANDLING INFORMATION

A summary of the hazards as defined by OSHA Hazard Communication Standard 29 CFR 1910.1200 for this product:

Physical hazards: None

Health hazards: None

FOR ADDITIONAL INFORMATION AND HANDLING INSTRUCTIONS READ AGC CHEMICALS AMERICAS, INC. MATERIAL SAFETY DATA SHEET.

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